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EXAMINER

LAMBERTSON, DAVID A

ART UNIT PAPER NUMBER

1636

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action
After the Filing of an Appeal Brief

Application No.

09/717,641

Examiner

David A. Lambertson

Applicant(s)

GERRARD ET AL.

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

The reply filed 5/1/05 is acknowledged.

1. ☐ The reply filed on or after the date of filing of an appeal brief, but prior to a final decision by the Board of Patent Appeals and Interferences, will not be entered because:
- a. ☐ The amendment is not limited to canceling claims (where the cancellation does not affect the scope of any other pending claims) or rewriting dependent claims into independent form (no limitation of a dependent claim can be excluded in rewriting that claim). See 37 CFR 41.33(b) and (c).
- b. ☐ The affidavit or other evidence is not timely filed before the filing of an appeal brief. See 37 CFR 41.33(d)(2).
2. ☐ The reply is not entered because it was not filed within the two month time period set forth in 37 CFR 41.39(b), 41.50(a)(2), or 41.50(b) (whichever is appropriate). Extensions of time under 37 CFR 1.136(a) are not available.

Note: This paragraph is for a reply filed in response to one of the following: (a) an examiner's answer that includes a new ground of rejection (37 CFR 41.39(a)(2)); (b) a supplemental examiner's answer written in response to a remand by the Board of Patent Appeals and Interferences (37 CFR 41.50(a)(2)); or (c) a Board of Patent Appeals and Interferences decision that includes a new ground of rejection (37 CFR 41.50(b)).

3. ☒ The reply is entered. An explanation of the status of the claims after entry is below or attached.
4. ☒ Other: See Continuation Sheet.

JAMES KETTER
PRIMARY EXAMINER

ADVISORY ACTION

Continuation sheet

Response to Arguments Concerning Rejections under 35 USC § 103

Applicant's Request for Reconsideration does NOT place the application in condition for allowance because Applicant's arguments do not overcome the rejections. Applicant provides the following grounds of traversal concerning the outstanding rejections under 35 USC § 103(a):

1. Applicant asserts that the Office has mischaracterized the teachings of Ladner. Applicant asserts that Ladner differentiates between a "precoat protein" and a "coat protein" in the description of Figure 1 (column 12, line 55 to column 13, line 5 of Ladner), stating that Ladner "refers to coat protein, wild-type or chimeric, *with the addition of the signal peptide* as 'precoat protein,' thereby distinguishing a precoat protein from one in which the signal peptide has been cleaved off to generate a 'coat protein' (original emphasis)." Applicant then suggests that this provides the proper context for the language relied upon in the rejection (see for example the first paragraph of page 4 in Applicant's response).
2. Applicant asserts that the signal peptides improperly referred to as portions of "coat protein" are actually degraded, and do not express on the surface (see for example the second paragraph of page 4 of Applicant's response).
3. Applicant submits that Ladner fails to teach the claimed invention (see for example paragraph 3 on page 4 of Applicant's response).
4. Applicant suggests that there is no motivation or expectation of success when combining the teachings of Huse and Ladner. Applicant suggests that Ladner indeed teaches away from combining the references because, in a discussion of other references, it is apparent that the

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addition of a suppressible termination codon is undesirable (see for example the bridging paragraph between pages 4 and 5 of Applicant's response).

Applicant's arguments have been fully considered but are not convincing for the following reasons:

1. First, it is not exactly clear what Applicant is arguing, since there is no statement as to what Applicant feels is deficient in the teachings of Ladner. As such, the Office can only respond with the interpretation that Applicant appears to argue that Ladner does not teach the use of a "portion" of a coat protein because Ladner does not consider the "signal peptide" a portion of the coat protein, and that the Office's interpretation of this concept is improper.

At issue is whether Ladner teaches the use of a "portion" of a coat protein. With regard to the teachings of Ladner, it is important to note that there is no explicit definition in the patent that says the "precoat protein" is not considered a "coat protein," nor is there a definition that says the signal peptide is NOT considered a portion of the "coat protein." Rather, Applicant predicates their argument on a semantical discussion of whether or not the "unprocessed" (Ladner's "precoat protein") and "mature" (Ladner's "coat protein") forms of a coat protein are considered "coat proteins." Based on the lack of a definition to the contrary, the broadest reasonable interpretation of the term "coat protein" would include the "precoat protein." Thus, considering these facts, both the signal peptide of a coat protein and the portion of a coat protein lacking the signal peptide must be considered portions of the coat protein,

Exacerbating this issue is the fact that the instant specification fails to define a "coat protein" (i.e., there is no definition indicating that the signal peptide is NOT considered to be a

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part of a "coat protein"), nor does Applicant point to a location in their own specification where they indicate that a signal peptide is NOT considered a "portion" of a "coat protein." Regardless of a definition in Ladner, it is Applicant's definition of a "coat protein" that is relevant to the interpretation of the claim. Given the absence of an explicit definition in the instant specification specifically stating that neither the signal peptide nor the portion of a coat protein lacking the signal peptide is considered "portions of a coat protein," it is the broadest reasonable interpretation to consider both of these as portions of a coat protein. As such, it is submitted that Ladner indeed teaches the use of a portion of a coat protein as set forth in the previous Office Action.

2. It is submitted that, as set forth above, there is no definition in the instant specification stating that a "portion of a coat protein" cannot be degraded. Thus, this argument is irrelevant to the determination of whether or not Ladner teaches a "portion of a coat protein" because it has no bearing on the definition of a "portion of a coat protein" in view of the instant specification.

3. This is merely a conclusory statement, presumably based on the arguments set forth above. As those arguments are not found persuasive, the conclusory statement is also found unpersuasive.

4. First, it is noted that the Office has provided statements regarding both the motivation to combine the Huse and Ladner references, and the expectation of success when combining said references. Applicant's sole argument regarding these statements concerns a misinterpretation of the teachings in Ladner in column 6, lines 6-17. The misinterpretation is Applicant's allegation that Ladner teaches away from the use of "spacers" because they constrain the conformational

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repertoire of mutated residues, as taught in the Scott/Smith and Cwirla references. This is an inaccurate interpretation of the statements in Ladner. What Ladner discusses is the following:

- (a) The Cwirla and Scott/Smith references teach the use of "spacers" to separate the variable region from the pIII/coat sequence to avoid constraint of the variable region by the coat protein (see for example column 6, lines 6-10). In other words, Cwirla and Scott/Smith teach that the "spacers" avoid constraining the conformational repertoire of the variable region.
- (b) The use of these "spacers" teaches away from constraining the conformational repertoire of the variable region (see for example column 6, lines 15-17); i.e., one *should use* spacers, as opposed to not using spacers which would constrain the variable region.

These teachings are supportive of the use of additional codons, such as a suppressible termination codon, because they avoid constraining the conformation of the variable region. This is in direct contrast to Applicant's interpretation of the teachings, which is apparently that the use of "spacers" causes conformational constraint. Based on the fact that Ladner actually teaches *using* the spacers, which Applicant suggests it does not (as the basis for teaching away), there is no teaching away. As such, the previous motivation and expectation of success statements set forth in the FINAL Office Action are considered valid, and the rejection is maintained.

Response to Arguments Concerning Double Patenting Rejections

Applicant indicates that a Terminal Disclaimer will be filed in response to the indication of Allowable Subject matter (see for example the bottom paragraph of page 5 in Applicant's response).

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Since neither arguments nor a Terminal Disclaimer have been field in response to the FINAL Office Action, the rejection is maintained based on the grounds set forth in the previous Office Action.